

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent Application of:

Alain Rossmann

Application no.: Not yet assigned

Filed: Herewith

For: Method and Architecture for an
Interactive Two-Way Data
Communication Network

which is a continuation of:

Alain Rossmann

Application no.: 08/978,701

Filed: November 26, 1997

which is a continuation of:

Application no.: 08/570,210

Filed: December 11, 1995

which issued as U.S. Patent no. 5,809,415

Box Patent Application

Assistant Commissioner for Patents

Washington, D.C. 20231

Examiner: Not yet assigned

Art Unit: Not yet assigned

Examiner: Ferguson, K.

Art Unit: 2683

PRELIMINARY AMENDMENT

Sir:

Prior to examining the present continuation application, please
amend the application as follows:

IN THE SPECIFICATION:

On page 1, at line 4 (prior to the heading "CROSS-REFERENCE TO MICROFICHE APPENDIX"), please insert the following paragraph:

-- This is a continuation of application no 08/978,701 of A. Rossmann filed on November 26, 1997, which is a continuation of application no. 08/570,210 filed on December 11, 1995, now issued as U.S. Patent no. 5,809,415, each of which is incorporated herein by reference. --

On page 1, please amend the first paragraph following the heading "CROSS-REFERENCE TO MICROFICHE APPENDIX" as follows:

-- Appendix A, which is a part of the present disclosure, is a microfiche appendix consisting of six sheets of microfiche having a total of 369 frames. Microfiche Appendix A is a listing of one embodiment of the client module of this invention, which is described more completely below, and a server, as described more completely below, to communicate and interact with the client module of this invention. --

On page 97, please amend the paragraph beginning at line 1 with as follows:

-- This application is related to copending and commonly filed U.S. patent application Ser. No. 08/570,384 entitled "A PREDICTIVE DATA ENTRY METHOD FOR A KEYPAD" of Alain Rossmann, which is incorporated herein by reference in its entirety. --

IN THE CLAIMS:

Please cancel claims 1-55 without prejudice.

Please add the following new claims:

- 1 56. (New) A method comprising:
2 receiving a request over a wireless network at a network node, wherein
3 the request originates from a mobile device on the wireless network and is for a
4 resource on a wireline network, and wherein the network node is coupled to the
5 wireless network and the wireline network;
6 obtaining the resource over the wireline network using the network node;
7 processing the resource in the network node to make the resource more
8 compatible with the mobile device or the wireless network or both; and
9 sending the processed resource from the network node to the mobile
10 device over the wireless network as a response to the request.
- 1 57. (New) A method as recited in claim 56, wherein processing the resource
2 comprises converting the resource from a first language used on the wireline
3 network to a second language used on the wireless network.
- 1 58. (New) A method as recited in claim 57, wherein the resource comprises a
2 mark-up language document.

1 59. (New) A method as recited in claim 57, wherein the second language is a
 2 distilled form of the first language, and wherein sending the processed resource
 3 to the mobile device comprises sending the resource to the mobile device in the
 4 second language over the wireless network, such that the resource sent to the
 5 mobile device is a compressed form of the resource obtained by the network
 6 node from a remote processing system on the wireline network.

1 60. (New) A method as recited in claim 56, wherein processing the resource
 2 comprises encryption or decryption.

1 61. (New) A method as recited in claim 56, wherein the network node comprises
 2 a gateway server to couple the wireless network to the wireline data network.

1 62. (New) A method as recited in claim 56, wherein the network node comprises
 2 a proxy server to proxy requests from the mobile device to remote servers on the
 3 wireline network.

1 63. (New) A method as recited in claim 56, further comprising:
 2 operating the network node to communicate with the mobile device over
 3 the wireless network using a first protocol; and
 4 operating the network node to communicate over the wireline network
 5 using a second protocol different from the first protocol.

1 64. (New) A method as recited in claim 56, further comprising operating the
 2 network node to collect transaction and billing information relating to
 3 communication between the mobile device and the remote processing system.

1 65. (New) A method as recited in claim 56, wherein the network node comprises
 2 an HTTP server.

1 66. (New) A method as recited in claim 65, wherein the network node comprises
2 a UDP module in addition to the HTTP server, and wherein the HTTP server
3 uses the UDP module to communicate data with the wireless network.

1 67. (New) A method as recited in claim 56, wherein the request from the mobile
2 device comprises a request to invoke an application running on a remote
3 processing system on the wireline network, and wherein the resource is
4 generated by the application in response to the request.

1 68. (New) A method as recited in claim 56, wherein the request from the mobile
2 device comprises an HTTP GET request.

1 69. (New) A method as recited in claim 56, wherein the request from the mobile
2 device comprises a URL for identifying the resource.

1 70. (New) A method as recited in claim 56, wherein the response to the request
2 comprises a card deck comprising one or more cards.

1 71. (New) A method as recited in claim 70, wherein the card deck is for use by
2 the mobile device in generating one or more screen displays on the mobile
3 device.

1 72. (New) A method as recited in claim 70, further comprising storing the card
2 deck in the network node prior to the network node receiving the request from
3 the mobile device, and wherein sending the processed resource from the network
4 node to the mobile device comprises sending the card deck to the mobile device
5 in response to the request.

1 73. (New) A method as recited in claim 70, further comprising operating the
2 network node to generate the card deck dynamically in response to the request.

1 74. (New) A method as recited in claim 70, wherein each card specifies one or
2 more tasks to be performed on the mobile device.

1 75. (New) A method as recited in claim 56, further comprising operating the
2 network node to control access by the mobile device to resources on the wireline
3 network.

1 76. (New) A method comprising:

2 receiving a request at a local server system coupled to a wireless network
3 and a wireline data network, wherein the request originates from a mobile device
4 operating on the wireless network, and wherein the request is for a hypermedia
5 based resource stored in a remote server system on the wireline data network;

6 obtaining the hypermedia based resource over the wireline data network,
7 using the local server system;

8 processing the hypermedia based resource in the local server system to
9 make the hypermedia based resource more compatible with the mobile device or
10 the wireless network or both; and

11 sending the processed hypermedia based resource from the local server
12 system to the mobile device over the wireless network as a response to the
13 request.

1 77. (New) A method as recited in claim 76, wherein the local server system
2 comprises a gateway server to couple the wireless network to the wireline data
3 network.

1 78. (New) A method as recited in claim 76, wherein the local server system
2 comprises a proxy server to proxy requests from the mobile device to remote
3 servers on the wireline data network.

- 1 79. (New) A method as recited in claim 76, wherein said server includes
2 converting the hypermedia based resource from a first language used on the
3 wireline data network to a second language used on the wireless network.
- 1 80. (New) A method as recited in claim 79, wherein the hypermedia based
2 resource comprises a markup language document.
- 1 81. (New) A method as recited in claim 79, wherein the second language is a
2 distilled form of the first language, and wherein sending the processed
3 hypermedia based resource to the mobile device comprises sending the
4 hypermedia based resource to the mobile device in the second language over the
5 wireless network, such that the hypermedia based resource sent to the mobile
6 device is a compressed form of the hypermedia based resource obtained from the
7 remote server system.
- 1 82. (New) A method as recited in claim 81, wherein the wireless network has a
2 lower bandwidth than the wireline data network.
- 1 83. (New) A method as recited in claim 76, wherein server the resource
2 comprises encryption or decryption.
- 1 84. (New) A method as recited in claim 76, further comprising operating the
2 local server system to communicate with the mobile device over the wireless
3 network using a first protocol and communicating over the wireline data
4 network using a second protocol different from the first protocol.
- 1 85. (New) A method as recited in claim 76, further comprising controlling access
2 by the mobile device to resources on the wireline data network.

- 1 86. (New) A method as recited in claim 76, further comprising collecting
2 transaction and billing information relating to communication between the
3 mobile device and the remote server system.
- 1 87. (New) A method as recited in claim 76, wherein the local server system
2 comprises an HTTP server.
- 1 88. (New) A method as recited in claim 87, wherein the local server system
2 comprises a UDP module in addition to the HTTP server, and wherein the HTTP
3 server uses the UDP module to communicate data with the wireless network.
- 1 89. (New) A method as recited in claim 76, wherein the request from the mobile
2 device comprises a request to invoke an application running on the server on the
3 wireline data network, and wherein the resource is generated by the application
4 in response to the request.
- 1 90. (New) A method as recited in claim 76, wherein the request from the mobile
2 device comprises an HTTP GET request.
- 1 91. (New) A method as recited in claim 76, wherein the request from the mobile
2 device comprises a URL for identifying the resource.
- 1 92. (New) A method as recited in claim 76, wherein the response to the request
2 comprises a card deck comprising one or more cards.
- 1 93. (New) A method as recited in claim 92, wherein the card deck is for use by
2 the mobile device in generating one or more screen displays on the mobile
3 device.
- 1 94. (New) A method as recited in claim 92, further comprising storing the card
2 deck in the local server system prior to receiving the request from the mobile

device, and wherein sending the processed hypermedia based resource from the local server system to the mobile device comprises sending the card deck to the mobile device in response to the request.

95. (New) A method as recited in claim 92, further comprising generating the card deck dynamically in response to the request.

96. (New) A method as recited in claim 92, wherein each card specifies one or more tasks to be performed on the mobile device.

97. (New) A server computer comprising:
a processor;
a first communication interface to communicate with a mobile device over a wireless network;
a second communication interface to communicate with a remote processing system over a wireline data network; and
a storage facility storing instructions for execution by the processor to cause the server computer to execute a process which includes
receiving a request for a resource on the wireline network from the mobile device over the wireless network;
obtaining the resource over the wireline network;
processing the resource to make the resource more compatible with the mobile device or the wireless network or both; and
sending the processed resource to the mobile device over the wireless network as a response to the request.

98. (New) A server computer as recited in claim 97, wherein processing the resource comprises converting the resource from a first language used on the wireline network to a second language used on the wireless network.

1 99. (New) A server computer as recited in claim 98, wherein the resource
2 comprises a mark-up language document.

1 100. (New) A server computer as recited in claim 98, wherein the second
2 language is a distilled form of the first language, and wherein sending the
3 processed resource to the mobile device comprises sending the resource to the
4 mobile device in the second language over the wireless network, such that the
5 resource sent to the mobile device is a compressed form of the resource obtained
6 from the remote processing system.

1 101. (New) A server computer as recited in claim 100, wherein the wireless
2 network has a lower bandwidth than the wireline network.

1 102. (New) A server computer as recited in claim 97, wherein processing the
2 resource comprises encryption or decryption.

1 103. (New) A server computer as recited in claim 97, wherein said process
2 further comprises communicating with the mobile device over the wireless
3 network using a first protocol and communicating over the wireline network
4 using a second protocol different from the first protocol.

1 104. (New) A server computer as recited in claim 97, wherein said process
2 further comprises controlling access by the mobile device to resources on the
3 wireline network.

1 105. (New) A server computer as recited in claim 97, wherein said process
2 further comprises collecting transaction and billing information relating to
3 communication between the mobile device and the remote processing system.

1 114. (New) A server computer as recited in claim 113, wherein the card deck is
 2 for use by the mobile device in generating one or more screen displays on the
 3 mobile device.

1 115. (New) A server computer as recited in claim 113, wherein the card deck is
 2 stored in the server computer prior to the request from the mobile device, and
 3 wherein said process further comprises sending the card deck to the mobile
 4 device in response to the request.

1 116. (New) A server computer as recited in claim 113, wherein said process
 2 further comprises generating the card deck dynamically in response to the
 3 request.

1 117. (New) A server computer as recited in claim 113, wherein each card
 2 specifies one or more tasks to be performed on the mobile device.

1 118. (New) A network apparatus coupled to a wireless network and to a
 2 wireline network and comprising:
 3 means for receiving a request over the wireless network at the network
 4 apparatus, wherein the request originates from a mobile device on the wireless
 5 network and is for a resource on the wireline network;

6 means for using the network apparatus to obtain the resource over the
 7 wireline network;

8 means for processing the resource in the network apparatus to make the
 9 resource more compatible with the mobile device or the wireless network or
 10 both; and

11 means for sending the processed resource from the network apparatus to
 12 the mobile device over the wireless network as a response to the request.

REMARKS

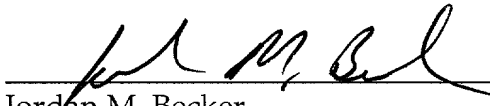
Applicant respectfully requests entry of this amendment prior to examination of the present application. Claims 1-55 have been canceled. Claims 56-118 are new. No new matter has been added.

If any additional fee is required, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

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I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

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MARKED-UP VERSION OF SPECIFICATION TO SHOW CHANGES

On page 1, please amend the first paragraph following the heading
"CROSS-REFERENCE TO MICROFICHE APPENDIX" as follows:

Appendix A, which is a part of the present disclosure, is a microfiche
appendix consisting of [??] six sheets of microfiche having a total of [??] 369
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server, as described more completely below, to communicate and interact with
the client module of this invention.

On page 97, please amend the paragraph beginning at line 1 with the as
follows:

-- This application is related to copending and commonly filed U.S. patent
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